The head hears a pair of internal cirri (*ic*) anteriorly, a pair of external cirri (*ec*) laterally and a single median cirrus (*nc*) dorsally. The anterior clavae (*ac*) are ovoid and placed dorsally on the head bearing a superficial resemblance to a pair of eyes. The cirrus A (*ca*) arises from the base of the posterior clava (*pc*). The previous illustration of Morgan & O'Reilly (1989) suggests that cirrus A is ventral to the clava. However, careful re-examination of the holotype indicates that, as in the Pacific species, the cirrus is in fact positioned dorsally to the clava.

The holotype specimen is presently mounted in a slightly skewed position. This enables observation of the forelegs on the left side and both rear legs. The combination of 4-clawed forelegs and 2-clawed rear legs is unique among British tardigrades. All the claws have a tiny accessory spur on the outer curve. The claws of the forelegs are, *in situ*, slightly tucked under the tip of the leg making detailed observation difficult. The foreleg claws have been illustrated here as if the leg tips have been slightly splayed upwards. The rear legs are figured with claws and bristles as observed. A small coxal papilla (*cop*) is situated towards the base of both rear legs.

The cuticular plate pattern of *M. seteloso* is similar to the type species with 3 principal body plates above the forelegs and a caudal plate posteriorly. The caudal plate carries a pair of long ciri E (*ce*), each with distinct annulations in the midpart and a long tapering flagellum. The plate boundaries are not entirely distinct, however, and the pattern is considerably confused by the occurrence of intervening accessory plates and cuticular folds producing overall a wrinkled appearance.

The body is ornamented with numerous bristles. All bristles observed under the present alignment of the holotype are included in the figure though it is possible that some may have been overlooked on account of their small size or orientation.

Elucidation of further details and variations of the morphology of *M. seteloso* await the discovery of new material.

## References

- McKirdy, D., Schmidt, P. & McGinty-Bayly, M. (1976). Interstitielle Fauna von Galapagos. XVI - Tardigrada. *Mikrofauna Meeresbodens* 58, 409 - 449.
- Moore, C. G. & O'Reilly, M. G. (1989). A re-examination of some problematical species of *Haloschizopera* (Copepoda: Harpacticoida). *Journal of Natural History* 23, 93-110.
- Moore, C. G. & O'Reilly, M. G. (1993). A description of *Haloschizopera bulbifera* (Sars) and three similar new species of harpacticoid copepod. *Journal of Natural History* 28, 53-74.
- Morgan, C. I. & Lampard, D. J. (1986). The fauna of the Clyde Sea Area Phylum Tardigrada. Occasional Publications of the University Marine Biological Station, Millport. No. 3, 40pp.
- Morgan, C. I. & O'Reilly, M. G. (1989). Additions to the Scottish Tardigrade Fauna, including a description of Megastygarctides seteloso new species, with a revised key for the identification of Scottish marine species. Glasgow Naturalist 21, 445-454.
- Renaud-Mornant, J. (1981). Tardigrades marina (Arthrotardigrada) du Pacifique Sud. Bulletin de la Museum national d'Historie naturelle, Paris, 4 ser., 3A(3), 799-813.

## Further records of *Crangonyx pseudogracilis* (Crustacea: Amphipoda) in the Clyde catchment

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Crangonyx pseudogracilis, a freshwater member of the amphipod family Crangonyctidae, is a North American species which was first discovered in Britain in the 1930s in the London area (Gledhill et al., 1993). It occurs now in most of England and Wales and has been recorded in several rivers in northeast Scotland and is common in Loch Ness (Gledhill et. al., 1993). It resembles superficially small pale specimens of the common genus Gammarus, but can be distinguished by the obvious serration on the posterior edge of the leg-like pereopods 3-5.

C. pseudogracilis was first recorded in this area from the Black Cart Water in 1990 (Doughty, 1992) and was found in 1996 in Loch Lomond in littoral kick samples collected by our biologists as part of the Environmental Change Network programme coordinated by the Institute of Terrestrial Ecology. Most recently, it was recorded in January 1998 from the Avon Water just upstream of its confluence with the river Clyde near Hamilton, and in October 1998 from the Clyde at two locations in Glasgow: Carmyle and Dalmarnock.

In view of the successful spread of this species so far, we expect it will be found in other parts of the area in the future.

## References

Doughty, C. R. (1992). Distribution of some Malacostraca in the west of Scotland. Freshwater Forum 2, 22-23.

Gledhill, T., Sutcliffe, D. W. & Williams, W. D. (1993). British Freshwater Crustacea Malacostraca: A Key with Ecological Notes. Scientific Publication No. 52, Freshwater Biological Association, Ambleside, Cumbria.

## Extension of the Ringlet butterfly's distribution in southern Loch Lomondside

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In early July 1997, Mr K. Ritchie reported finding a small colony of the Ringlet *Aphantopus herperatus* L. in tall grassland at the north end of Balloch Park NS390835. Prior to this discovery, the butterfly was only known in southern Loch Lomondside from roadside verges on the region's eastern fringe - the Muirpark NS488915 and the Bog of Ballat NS527903, distances of approximately 13 kms and 15.5 kms from the new site.

As the Ringlet has a slow, rather feeble mode of flight, not particularly well adapted to long distance dispersal, it seemed unlikely that the colonisation of Balloch Park was achieved in a single move. Accordingly, in the following year a search was made of suitable habitat at several places in the intervening area. Despite the persistently bad weather experienced during the butterfly's flight period in July 1998, Ringlets were found along the river bank of the Endrick below Balfron bridge